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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: Lincoln *et al.*

Attorney Docket: 13020-10

Serial No.: 09/618,178

Examiner (from parent): Fredman, J.

Filed: July 18, 2000

Group Art Unit (from parent): 1655

For: AUTOMATIC GENOTYPE DETERMINATION

Kalow & Springut LLP  
488 Madison Avenue, 19<sup>th</sup> Floor  
New York, NY 10022

September 5, 2000

Assistant Commissioner for Patents  
Washington, D.C. 20231

**INFORMATION DISCLOSURE STATEMENT**

Sir:

In order to fulfill the requirements of candor and good faith set forth in 37 CFR § 1.56, Applicants submit herewith the following disclosures in accordance with the provisions of 37 CFR § 1.97 and § 1.98.

**U.S. PATENT DOCUMENTS**

<b><u>PATENT NO.</u></b>	<b><u>TITLE</u></b>	<b><u>ISSUE DATE</u></b>
4,309,112 to Ashley et al.	RATE MEASUREMENT ANALYZER	Jan. 5, 1982
4,852,017 to Hunkapiller	DETERMINATION OF PEPTIDE SEQUENCES	Jul. 25, 1989
5,221,518 to Mills	DNA SEQUENCING APPARATUS	Jun. 22, 1993
5,415,839 to Zaun et al.	APPARATUS AND METHOD FOR AMPLIFYING AND DETECTING TARGET NUCLEIC ACIDS	May 16, 1995
5,443,791 to Cathcart et al.	AUTOMATED MOLECULAR BIOLOGY LABORATORY	Aug. 22, 1995
5,449,621 to Klein	METHOD FOR MEASURING SPECIFIC BINDING ASSAYS	Sep. 12, 1995

**Certificate of Mailing Under 37 C.F.R. 1.8**

I hereby declare that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner of Patents, Washington, D.C.,

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<u>PATENT NO.</u>	<u>TITLE</u>	<u>ISSUE DATE</u>
5,453,247 to Beavis et al.	INSTRUMENT AND METHOD FOR THE SEQUENCING OF GENOME	Sep. 26, 1995
5,516,663 to Backman et al.	LIGASE CHAIN REACTION WITH ENDONUCLEASE IV CORRECTION AND CONTAMINATION CONTROL	May 14, 1996

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FOREIGN PATENT DOCUMENTS

<u>PATENT APPLICATION NO.</u>	<u>TITLE</u>	<u>PUBLICATION DATE</u>
WO 88/03957	NUCLEIC ACID PROBES FOR DETECTION AND/OR QUANTIFICATION OF NON-VIRAL ORGANISMS	2 June 1998
WO 90/04651	MAPPING QUANTITATIVE TRAITS USING GENETIC MARKERS	3 May 1990
WO 92/15712	NUCLEIC ACID TYPING BY POLYMERASE EXTENSION OF OLIGONUCLEOTIDES USING TERMINATOR MIXTURES	17 September 1992
WO 93/11262	METHOD OF SELECTING AT LEAST ONE MUTATION SCREEN, ITS APPLICATION TO A METHOD FOR RAPID IDENTIFICATION OF ALLELES OF POLYMORPHOUS SYSTEMS AND DEVICE FOR IMPLEMENTATION THEREOF	10 June 1993

OTHER DOCUMENTS

1. Fisher Scientific Catalog, p. 697, (1983).
2. Theo T. Nikiforov *et al.*, "Genetic Bit Analysis: A Solid Phase Method for Typing Single Nucleotide Polymorphisms," *Nucleic Acids Research*, vol. 22, No. 20, pp. 4167-4175 (1994).
3. David J. Balding *et al.*, "Statistical Analysis of DNA Fingerprint Data for Ordered Clone Physical Mapping of Human Chromosomes," *Bulletin of Mathematical Biology*, vol. 53, No. 6, pp. 853-879 (1991).

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4. Mark Keating, M.D., "Linkage Analysis and Long QT Syndrome Using Genetics to Study Cardiovascular Disease," *Circulation*, vol. 85, No. 6 pp. 1973-1986 (1992).
5. Tosh, Yasunaka *et al.*, "Determination of Gene Recombination Value," *Patent Abstracts of Japan*, vol. 018 no. 215 (C-1191) (1994).
6. David C. Mansfield *et al.*, "Automation of Genetic Linkage Analysis Using Fluorescent Microsatellite Markers," *Genomics*, vol. 24, pp. 225-233 (1994).
7. Mark D. Shriver *et al.*, "VNTR Allele Frequency Distributions Under the Stepwise Mutation Model: A Computer Simulation Approach," *Genetics*, vol. 134, pp. 983-993 (1993).
8. M. Nata *et al.*, "Prenatal paternity testing with DNA analyses," *International Journal of Legal Medicine*, vol. 106, pp. 160-162 (1993).
9. Colin P. Kimpton *et al.*, "Automated DNA Profiling Employing Multiplex Amplification of Short Tandem Repeat Loci," *PCR Methods and Applications*, vol. 3, pp. 13-22 (1993).
10. W. Edward Highsmith, Jr., *et al.*, "Frequency of the  $\Delta$ Phe<sup>508</sup> Mutation and Correlation with XV.2c/KM-19 Haplotypes in an American Population of Cystic Fibrosis Patients: Result of a Collaborative Study," *Clin. Chem.*, vol. 36 no 10, pp. 1741-1746 (1990).
11. Andrew G. Clark, "Inference of Haplotypes from PCR-amplified Samples of Diploid Populations," *J. Biol. Evol.*, vol. 7 no. 2, pp. 111-122 (1990).
12. W. Y. Tan, "On the Distribution of the Number of Mutants at the Hypoxanthine-Quanine Phosphoribosyl Transferase Locus in Chinese Hamster Ovary Cells," *Mathematical Biosciences*, vol. 67, pp. 175-192 (1983).

The above documents are also listed on Applicants' PTO 1449 Form which is enclosed for the convenience of the Examiner. A copy of each of the items identified above is submitted with this statement.

The attorneys for the Applicants take no position on whether or not any item cited above and listed on Form PTO 1449 constitutes prior art against the subject application under any particular provision of Title 35 of the United States Code.

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The Commissioner is hereby authorized to charge any fees which may be required for this Information Disclosure Statement to Deposit Account No. 11-0171.

Respectfully submitted,

Franklin S. Abrams  
Registration No.: 43,457  
Attorney for Applicants

Telephone No.: (212) 813-1600

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